REMARKS

Applicants appreciate the Examiner's thorough consideration provided the present application. Claims 1-8 are now present in the application. Claims 1-6 have been amended. Claims 7 and 8 have been added. Claim 1 is independent. Reconsideration of this application, as amended, is respectfully requested.

Claim Rejections Under 35 U.S.C. § 103

Claims 1, 2, 5 and 6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bahl, U.S. Patent Application Publication No. 2003/0054818 (hereinafter "Bahl '818"), Tsirtsis, U.S. Patent No. 6,954,442, Ohtani, U.S. Patent Application Publication No. US 2003/0157936, Bahl, U.S. Patent Application Publication No. 2002/0095486 (hereinafter "Bahl '486"), and Lin, U.S. Patent Application Publication No. 2004/0242240. Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bahl '818, Tsirtsis, Ohtani, Bahl '486, and Lin, and further in view of Hamasaki, U.S. Patent Application Publication No. US 2004/0137901. These rejections are respectfully traversed.

In light of the foregoing amendments, Applicants respectfully submit that these rejections have been obviated and/or rendered moot. As the Examiner will note, independent claim 1 has been amended to recite a combination of elements including "A wireless communications system comprising at least one wireless communication terminal and a wireless communication server, wherein the wireless communications system is able to be connected to at least two kinds of wireless communication networks simultaneously, two of the wireless communication networks are to work as a basic access network and a wireless access network, respectively; the basic

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access network is able to deal with data communications in addition to signaling communication,

and the wireless access network deals with only data communications; and when the wireless

communication terminal detects communication trouble in the wireless access network, to which

the wireless communication terminal is currently connecting, the wireless communication

terminal searches a new wireless communication network available, and the wireless

communication terminal temporary uses the currently-connecting basic access network for data

communications in addition to signaling communication until the new wireless communication

network is designated as a new wireless access network."

Applicants respectfully submit that the above combination of elements as set forth in

amended independent claim 1 is not disclosed nor suggested by the references relied on by the

Examiner.

In particular, the Examiner referred to the IS network and the AH network shown in FIG.

2 of Bahl '818 as the two wireless communication networks as recited in claim 1. However,

Bahl '818 in paragraphs [0027]-[0029] discloses:

> [0027] For example, FIG. 2 illustrates a computing environment in which such a
> dual-mode wireless device may be used. In this environment, an infrastructure
> ("IS") network 210 co-exists with an ad hoc ("AH") network 280 such that their
> transmission ranges overlap. Moreover, the two wireless networks use the same
> frequency channel for wireless transmissions. In the particular example
> illustrated in FIG. 2, the IS network is a local area network ("LAN") that has an
> access point node 215 for communicating with wireless devices in the IS
> network. The access point 215 servers as an interface between the wireless nodes
> and the wired portion of the IS network. Through the access point, the wireless
> nodes can access the wired portion of the IS network and beyond to other
> connected networks such as the Internet 255.
>
> [0028] In the IS network 210 illustrated in FIG. 2, a laptop computer 200 forms a
> radio frequency link 205 with the access point 215. As part of the IS
> communication scheme, the IS network 210 assigns the laptop computer 200
> with a routable network IP address, the prefix of which is the same as that for

other nodes within the network 210. Another laptop computer 220 in the IS network communicates with the access point 210 via a radio frequency link 225. The access point 215 controls wireless communication traffic to and from each of the laptop computers 200 and 220. This control is exerted for providing quality of service assurances to tasks or applications executing on the IS nodes. The access point 215 manages the communications of the IS wireless nodes by transmitting poll signals (termed "infrastructure poll signals") to direct an IS wireless node, such as the laptop computer 200, to transmit its packets in a specified time period.

[0029] In the example illustrated in FIG. 2, the laptop computer 220 is a dual-mode device. It is part of the IS network 210 when it operates in the IS mode and part of the AH network 280 when it operates in the AH mode. The AH network 280 illustrated in FIG. 2 also includes a handheld device 230 that communicates with the laptop computer 220 over a radio frequency link 235. It will be appreciated that other types of wireless devices, such as cellular phones that talk over the 802.11b wireless LAN protocol, may be included in the AH network. While communicating with the handheld device 230, the laptop computer 220 is in the AH mode and is responsive to an IP address in the autonet ad-hoc address range. In other words, laptop computer 220 responds to two different IP addresses--the infrastructure address and the ad-hoc address. Ad hoc addresses are non-routable and are in a specified range of autonet addresses. This range is reserved for AH communications. (emphasis added)

In other words, Bahl '818 simply discloses that the laptop computer 220 operates in different modes (i.e., IS mode or AH mode) depending on whether the laptop computer 220 communicates with the access point 215 (IS mode) or the device such as a handheld device in the AH network (AH mode).

In addition, Bahl '818 in paragraphs [0032]-[0033] discloses:

[0032] Referring now to FIG. 3, in accordance with an aspect of the invention, to facilitate the switching between the two network modes, a wireless controller driver (WCD) 300 is provided as an inserted module (typically called a "shim") in the networking stack 305 (e.g., the IP stack) above the actual wireless device drivers. The wireless controller driver 300 is responsible for enabling and disabling alternatingly the two wireless network modes. To that end, it exposes two "virtual network adapters" to a higher layer in the network protocol stack. The term "adapter" is typically used in the context of operating system architecture to represent a network interface card (also called a network adaptor). It is a handle that, when passed in a function, relates the request made to a

particular physical network interface card. In this case, the wireless controller driver will associate the request, i.e. the packet sent with the request, with a particular mode of operation of a "single" wireless network card. Since each of the two adapters exposed are for the same physical wireless adapter but imply different modes of operation, they are referred to herein as "virtual adapters."

[0033] Each of the two virtual network adapters 310 and 315 corresponds to one of the two wireless communication modes and has an associated queue 320 or 325 for storing communication packets sent by the networking stack over the virtual device adapter for transmission over the corresponding wireless network. The wireless mode controller 300 transmits the queued packets 330 or 335 for the virtual adapter that has become active when the dual-mode device is switched into the corresponding wireless network mode. (emphasis added)

In other words, Bahl '818 discloses that the wireless controller driver 300 of the dual-mode device (e.g., the laptop computer 220) transmits the queued packets 330 or 335 (which should include data and signaling communications) depending on which mode (IS mode or AH mode) is used.

In view of the above, Bahl '818 discloses that the dual-mode device switches the wireless network mode depending on whether dual-mode device communicates with the device in the IS network or the AH network, and the wireless controller driver 300 transmits the queued packets 330 or 335 (which should include data and signaling communications) depending on which mode (IS mode or AH mode) is used. Therefore, no matter whether the IS network or the AH network is used, each of the IS network and the AH network, when used, is for both data communication and signaling communication. Bahl '818 nowhere discloses that one of the IS network and the AH network is for data communication and signaling communication, and the other one of the IS network and the AH network is for data communication only. In fact, if any one of the IS network and the AH network (e.g., AH network) were for data communication only, then the signaling communication in this network (e.g., AH network) would not be handled

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by this network (e.g., AH network) itself. In addition, the other network (e.g., IS network) cannot handle the signaling communication of this network (e.g., AH network) because the IS network and the AH network cannot communicate with each other (see paragraph [0030] of Bahl '818). Therefore, Bahl '818 fails to teach "two of the wireless communication networks are to work as a basic access network and a wireless access network, respectively; the basic access network is able to deal with data communications in addition to signaling communication, and *the wireless access network deals with only data communications*" as recited in claim 1.

In addition, as mentioned, Bahl '818 simply discloses that the dual-mode device switches the wireless network mode depending on whether the dual-mode device communicates with the device in the IS network or the AH network, but fails to teach that the dual-mode device switches the wireless network mode when it detects communication trouble in any one of the IS network and the AH network. Furthermore, when any one of the IS network and the AH network is defective, the other one of the IS network and the AH network cannot handle the data/ signaling communications for this defective network because Bahl '818 in paragraph [0030] clearly discloses that the IS network and the AH network cannot communicate with each other (see paragraph [0030]). Therefore, Bahl '818 also fails to teach "*when the wireless communication terminal detects communication trouble in the wireless access network,* to which the wireless communication terminal is currently connecting, the wireless communication terminal searches a new wireless communication network available, and *the wireless communication terminal temporary uses the currently-connecting basic access network for data communications in addition to signaling communication until the new wireless communication network is designated as a new wireless access network*" as recited in claim 1.

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With regard to the Examiner's reliance on the secondary references, these references also fail to disclose the above combination of elements as set forth in amended independent claim 1. Accordingly, these references fail to cure the deficiencies of Bahl '818.

Accordingly, none of the references utilized by the Examiner individually or in combination teach or suggest the limitations of amended independent claim 1 or its dependent claims. Therefore, Applicants respectfully submit that claim 1 or its dependent claims clearly define over the teachings of the references relied on by the Examiner.

Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103 are respectfully requested.

Additional Claims

Claims 7 and 8 have been added for the Examiner's consideration. Applicants respectfully submit that claims 7 and 8 are allowable due to their respective dependence on independent claim 1, as well as due to the additional recitations included in these claims. Favorable consideration and allowance of claims 7 and 8 are respectfully requested.

CONCLUSION

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact Cheng-Kang (Greg) Hsu, Registration No. 61,007 at (703) 205-8000 in the Washington, D.C. area.

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future

replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any

additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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